

What is claimed is:

1. An anode thin film for a lithium secondary battery comprising a current collector and an anode active material layer formed thereon,

wherein the anode active material layer contains an intermetallic compound of tin
5 (Sn) and nickel (Ni), and in particular, the intermetallic compound is Ni_3Sn_4 .

2. An anode thin film for a lithium secondary battery comprising a current collector and an anode active material layer formed thereon,

wherein the anode active material layer is a single layer containing tin (Sn) and a
10 metal selected from zirconium (Zr), vanadium (V), manganese (Mn), titanium (Ti), nickel (Ni), and copper (Cu).

3. The anode thin film of claim 2, wherein the composition ratio of tin and the metal is in the range of 7.5:2.5 to 5:5.

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4. The anode thin film of claim 2, wherein silver (Ag) is further contained in the single layer containing the tin and the metal to increase conductivity of lithium ions.